ACCURATE, ADVANCED 3D PRINTERS

For Versatile Industrial Production

Unparalleled Material Freedom

- Widest range of thermoplastic materials
- 3 extruders for multi-material, multi-color printing options
- *Functional* field test products

Superior Prototyping & Product Creation

- Powerful software tools
- HEPA filtered heated and controlled build chamber
- Protoypes that work!

Cost Effective Manufacturing

- Affordable high quality end-use parts
- Repeatable and reliable low-volume production
- 24 x 7 printing with remote monitoring & control

Multi-material gear
printed with IGUS Iglide & ABS

Plural Additive Manufacturing Changes the Game

Reduces low volume parts cost by ~50%

Plural introduces additive manufacturing machines, materials and processes that deliver a wide range of end-use parts in low- to mid-volumes (from 10's to 1,000's per month depending on part size and geometry) at game changing costs.

Historically these parts would be manufactured using hard tooling and plastic injection molding, CNC machining, or fabricated from less-than optimal materials.

While conducting a number of case studies with companies using traditional methods for the production of less-than-high volume parts, it was found that savings of 50% or more was the norm. This cost savings is inclusive of all 3D printer, maintenance and materials costs.

Additive Manufacturing (AM) enables the production of complex parts directly from CAD models without the NRE (non-recurring engineering) costs of CAM programming, fixturing, setup, potential errors, lead time and machine run time costs or hard tooling.

AM is ideal for small production runs and mass customization.

Benefits include:

- Inventory on demand
- Spare parts on demand
- Supply chain lag-time elimination
- Elimination of obsolete inventories
- Part design geometries not manufacturable with traditional methods

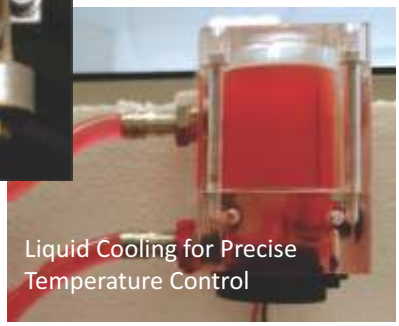
For details on the studies, or to have one done for your company, visit pluralam.com. We'll work with you to determine how AM will benefit you.

plural
ADDITIVE MANUFACTURING

A2/A4 Specifications

Dimensional Data	A2	A4
Printer Dimensions	940 x 715 x 1125mm 37 x 32 x 44.3”	528 x 515 x 615mm 20.7 x 20.2 x 24.2”
Printer Weight	110 kg — 242 lbs.	43 kg — 94 lbs.
Shipping Dimensions	1041 x 831 x 1321mm 41 x 32.7 x 52”	681 x 620 x 920mm 26.8 x 24.4 x 36.2”
Shipping Weight	226 kg — 498 lbs.	69 kg —152 lbs.


3 Extruder Print Head


Liquid Cooling for Precise Temperature Control

Electro/Mechanical Data	A2	A4
Ambient Operating Temperature	16 - 32°C — 61 - 90°F	Same
Storage Operating Temperature	5 - 40°C — 41 - 104°F	Same
AC Input	220/230 Vac - 15A	110/120 - 15A
Power Supply	24 Vdc - 13A	Same
Connectivity	USB, Micro SD Card, LAN	Same
Steel Cabinet/Frame Construction	2mm (.08”) Powder Coated	Same
Clear Panels	Polycarbonate	Same
Heated Print Bed	Anticorodal 6082	Same

Printing Specifications	A2	A4
Printer Technology	FFF	Same
Number of Extruders	2 or 3	Same
Maximum X-Y Axis Speed	300mm/sec — 11.8”/sec	Same
Maximum Z Axis Speed	2mm/sec — .08”/sec	Same
Maximum Extruders Speed	43mm/sec — 1.7”/sec	Same
Build Envelope - W x D x H[1]	600 x 325 x 500mm 23.6 x 12.7 x 19.6”	295 x 195 x 190mm 11.6 x 7.6 x 7.4”
Positioning Precision - X-Y	11 Microns — .000433”	Same
Positioning Precision - Z	5 Microns — .0002”	Same
Positioning Precision - Extruders	.9 Microns	Same
Filament Diameter	2.85mm +/- .1mm	Same
Standard Nozzle Diameter[2]	.4mm — .01575”	Same
Max Extruder Temperature[3]	450°C — 842°F	Same
Maximum Heated Bed Temp[4]	160°C — 320°F	Same
Max Heated Chamber Temp[5]	90°C — 194°F	90°C - 194°F
Minimum Layer Thickness	50 Microns — .00197”	Same


Multi-color & Material


Flexible Bellows


Flexible Hand Grip


Soluble Support Material

Flexible TPU

What’s in the box?

- HEPA filtration system
- 3D print server with web cam & print management software
- Model preparation software
- Tool kit and startup ABS filament
- The printer with 1 year warranty
- Plural’s expert team to insure that your AM investment pays!

[1]A4 depth (D) is 39 mm (1.54”) less with three nozzles installed, A2 is 35 mm (1.38”) less
[2]Available nozzles: .3mm, .4mm, .6mm, .8mm & .4mm hardened anti-abrasian
[3]Standard/Optional maximum nozzle temperature. 450°C on 2 of 3 nozzles.
[4]Measured at the heater on the aluminum print base. [5]In conjunction with heated bed at maximum temperature.
All specifications are subject to change due to ongoing research and product development.